THE AIR LINE PILOT

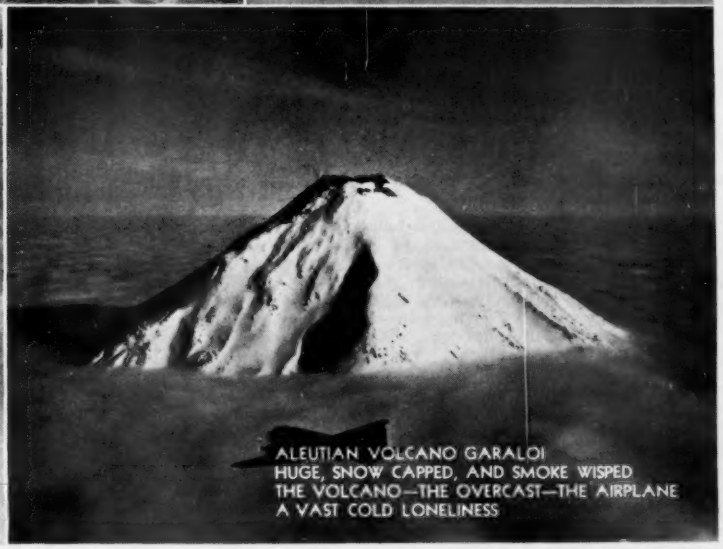
VOL. 19—NO. 8 — 66 — SEPTEMBER, 1950

AN UNUSUAL SCENE
LEFT—AIRLINER
RIGHT—DESERT ENGINE
CRASH DEAD ON RAILROAD

WHERE 55 MET DEATH
DATE: AUGUST 31, 1950
PLACE: NEAR CAIRO, EGYPT
AND THAT'S HOW IT LOOKED

WORDS REFLECT LITTLE
PICTURES REFLECT MUCH
PICTURED HERE—FIRE ALOFT

AIR VIEW
X MARKS BURNED OFF MOTOR
CRASH AND R.R. INTERSECT



ALEUTIAN VOLCANO GARALOI
HUGE, SNOW CAPPED, AND SMOKE WISPED
THE VOLCANO—THE OVERCAST—THE AIRPLANE
A VAST COLD LONELINESS

"SCHEDULE WITH SAFETY"

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THE AIR LINE PILOT

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ALPA's Log---1931

Engulfed in the present day high pressure tempo of business and organization activity, it is a common trait to look only into the future and forget the past. To create a better balanced perspective as to present day headings and what has been accomplished for us, it is wise to occasionally examine into the happenings of yesteryear. With this in mind and because 1950 and the convening of the 11th Biennial Convention on October 31, 1950, marks ALPA's 20th Anniversary, following is printed verbatim the "Foreword" of the first "Organization Log of the ALPA International," printed August 20, 1931, nineteen years ago.

"It is the purpose of this prospectus to explain step by step, the various chapters in the history of the new AIR LINE PILOTS ASSOCIATION (International), and to outline its contemplated future activities and policies.

"During the early part of the year 1931, certain changes were made which directly affected all flying personnel on regularly scheduled air lines in this country; namely, remuneration and working conditions, resulting in increased flying time from an average of sixty to seventy hours on the average air line, up to ninety and one hundred hours a month, and in some cases even more.

"At a recent conference in Washington, D. C., a certain employer stated he was flying his pilots one hundred twenty hours each month. He also stated that one hundred seventy hours was considered by him to be a reasonable maximum for his pilots.

"It is the concensus of opinion of most line pilots that we are at the present time flying up to the limit of average human endurance, which is showing an average of eighty to one hundred hours each month. It is obvious, however, that this is not considered the maximum.

"As to remuneration, with the exception of a very few lines, cuts have been placed in effect averaging from twenty to fifty per cent and, in many cases, doing away entirely with the old precedent established by the U. S. Government Air Mail Service. The latter paying on a basis of base pay and mileage, with a fifty per cent increase for night flying.

"Most line pilots up to this time have belonged to various pilot organizations, which organizations in some cases were established by line pilots. Very naturally it was assumed that relief from the above stated conditions would be forthcoming, and in a measure stay the drastic results that such reductions in remuneration and increase in flying hours would be bound to bring about. However, such relief was not forthcoming, for various reasons too numerous to discuss. Therefore, the natural action on the part of these line pilots was to organize, the idea in mind being to establish themselves as a body capable of representing themselves in future controversies and in any and all matters directly and indirectly affecting their future welfare and livelihood.

"With this idea uppermost in mind, meetings were held in various parts of the United States, the point being to decide upon the proper method of procedure. These meetings eventually evolved to a point where there emerged two definite groups of air line pilots, one located in the western section of the United States at Salt Lake City, Utah. The other body was located in the central west at Chicago, Illinois."

PAA Agreement Signed

On April 29, 1949, negotiations with Pan American to amend the pilots' employment agreement were officially initiated under the provisions of the Railway Labor Act. Direct negotiation conferences began on July 7, 1949. Mediation was invoked on November 4, 1949, and mediatory conferences began on August 14, 1950. The amended agreement with Pan American World Airways was signed on October 14, 1950. Following are some of the highlight provision in the new PAA pilots' employment agreement:

(a) Minimum guaranteed salaries for all pilots and copilots for 70-hours of flying per month; (b) the conversion from Pan American's historic flat pay for pilots to an increment system; (c) the establishment of an advanced bidding system for all pilots; (d) increases ranging as high as 20% for pilots and copilots and the establishment of rates for all pilots recognizing differentials for equipment flown; (e) full pay and flight time credit for all deadheading at company request; (f) an increment type hourly pay for copilots at rates recognizing differentials for heavier and faster equipment; (g) participation of the pilots in the determination of pilot quotas and in the establishment and operation of base station schedule systems; (h) preference for pilots in accordance with seniority for assignment to aircraft to be flown; (i) an improvement in working conditions by the provision that pilots shall receive a reasonable balance between time away and time at their home base station, and by a more definite limitation on the hours the pilots may fly in a calendar quarter, and a lower "aiming point" in the annual utilization of pilots.

STRICTLY BUSINESS by McFeatters

"Tell the Grievance Committee I'm ready to negotiate!"

The Cover Pictures

Despite the purposeful statistics frequently being published respecting air safety, and the bland indifference of congressional leaders to much-needed air safety legislation — namely Senator McCarran's S. 8 and Congressman Crosser's H.R. 5561—to re-establish the independent Air Safety Board, mass fatalities and chain-like crashes on the air lines continue unabated. Speaking statistically in a more realistic way, during the past 120 days, there have been 4 fatal accidents, resulting in the death of 134 people, and the injury of 8.

(UPPER LEFT) Here is a most unusual scene. The wreckage marks the point of impact on the barren desert sands near Cairo, Egypt, of the August 31, 1950, TWA Constellation crash, which resulted in the death of 55 passengers and crew members. At the left is a DC-3 airliner, a relief plane that made a landing on the desert near the crash scene. At the extreme right is a small desert locomotive. The crash occurred directly on a narrow gauge desert railroad track.

(CENTER LEFT) From this photo can be gathered a realistic idea of what the actual crash scene of an airliner looks like when viewed by the investigators. And this wasn't the first photo taken. Perhaps, if more people could see the first pictures taken of an accident scene of this kind, they would not be so vociferous in their opposition to an independent Air Safety Board and independent air safety investigation and recommending to prevent happenings such as are pictured here, but would instead be proponents of Senator McCarran's S. 8 and Congressman Crosser's companion legislative measure, H.R. 5561, to re-establish the independent Air Safety Board.

(LOWER LEFT) This is an air view of the scene of the Cairo, Egypt, crash, and "X" marks the point of impact of the burned-off engine. Strangely enough, the point on the desert where the plane crashed, intersected dead-on with the narrow-gauge tracks of a desert-traversing Egyptian railroad. The distance from the burned-off engine to the point of fatal impact, was four-and-one-half miles. Apparently, fire aloft rendered the plane uncontrollable since the unobstructed level desert terrain, apparently ideal for a forced landing, could not have been a factor in the accident.

(LOWER RIGHT) Here is probably one of the most beautiful and awe-inspiring aerial photos ever recorded. It is on the routes of Northwest Airlines along the Aleutian chain of islands extending westward from Alaska. The volcano is Mount Garaloi—huge, snow-capped, and exhaling a small wisp of smoke indicating it is one of nature's slumbering giants. The volcano—the overcast—the airplane—together create a composition of pictorial vastness, coldness and loneliness, seldom if ever duplicated.

(UPPER RIGHT) The picture caption "Words reflect little, pictures reflect much, Pictured here—Fire Aloft" is indeed a fitting description of this photo—probably the greatest aerial action picture ever recorded by modern photographic techniques. We read with stoic complacency of fires aloft and forget their terrible consequences. Here is pictured what a fire aloft really looks like, and what an engine, burning off in flight, actually means. Fires in the air should long ago have been erased from the air line transportation air safety picture. There have been long periods in the development of air transportation when fires aloft were so rare as to be to all intents and purposes non-existent. As the planes grew faster and more powerful, fires in the air again returned and are today one of the most prevalent hazards — a hazard which can and must be eliminated.

APPRECIATION

ALPA's responsibilities to its membership and its readiness to lend a helping hand when needed are too often taken for granted and all too soon forgotten. Chairman John H. Ganley, Council No. 90, Robinson Airlines, after Robinson Airlines' tragic crash, didn't forget. Here's his letter:

"Dear Mr. Behncke:

"The purpose of this letter is to thank you and your staff for your aid in our recent tragic accident.

"Your promptness in dispatching Mr. Eck to the scene of the accident, was most gratifying.

"Mr. Eck's manner in conducting his investigation and his willingness to aid us, is a credit to ALPA.

"Realizing the many problems facing airline pilots it's good to know that ALPA is behind us.

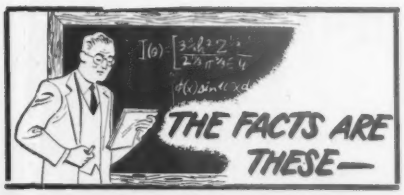
"Sincerely yours,
/s/ *"John H. Ganley"*

"AND OF THE NATIONAL DEFENSE"

Experienced in the problems and procedures of instituting a military air lift, our nation's air lines met the challenge of the Red invasion of South Korea on June 25 by immediately furnishing civil air transports to aid the Military Air Transport Service in flying vitally needed supplies, ammunition, and personnel to the Korean theater. The air line pilots again stepped quietly into the role of wartime air transport pilots, ready and willing to duplicate the vital services they supplied as military transport pilots in World War II. Again it is being kept a deep dark secret. Why? Is it because the brass will be embarrassed? One day when the truth will be told, they will be still more embarrassed. Pictured here at the Fairfield-Suisun Airbase in California, are 4 of the 60-odd civil air transports supplied by our nation's air lines. (L. to R.), an AOA Stratocruiser, Capital Airlines DC-4, Eastern Air Lines DC-4, and a Pan American Stratocruiser—all being readied for an air lift flight to the Far East. Led by three lieutenants and flanked by a sergeant, a group of fighting men prepare to board the Pan American Stratocruiser "Constitution." This photograph is truly illustrative of the foresight of the fathers of the Civil Aeronautics Act of 1938, when they included therein, in a Declaration of Policy, the following: "The Authority shall consider . . . as being in the public interest . . . and public convenience and necessity—(d) competition to the extent necessary to assure the sound development of an air transportation system properly adapted to needs of the foreign and domestic commerce of the United States, of the Postal Service, *and of the national defense.*" In this Korean war, we have had our second opportunity to learn the importance to our nation's defense of maintaining a large corps of highly trained air line pilots as an adjunct to our military. Only the future will reveal whether our government or the air carriers have learned the fallacy of furloughing hundreds of air line pilots at the slightest provocation—never to regain the services of a majority of them.

KIMPO LANDING

The first troop-carrying transport to use Kimpo Airfield since its recapture from the North Korean communists by the Marines is shown touching down on the runway. It was followed by an almost endless stream of transports carrying men and material to the second front to bolster the advances made by the Marines in their Inchon landings and in the recapture of Seoul.



WHO'S SUBSIDIZED?

There has been much heated discussion of the word "subsidy" when used in connection with the air transport industry. And under provisions of the Omnibus Appropriation Bill, funds were supplied to enable the Senate Interstate and Foreign Commerce Committee to have a survey made with a view of drafting legislation requiring the separation of mail compensation from any Federal subsidy payments.

This is indeed, a heroic task and much interest will center around their findings, but no matter what the outcome of these "separation" studies may be and whether certain air line officials like the word or not, **subsidies** as such, **do exist** in the air line industry. One need look no further than the mail payments received by the various air lines to verify this fact. For example, Eastern Air Lines and National Airlines, whose routes are competitive insofar as geography is concerned, were paid respectively 67c per ton mile and $3.04 per ton mile for mail carried in the first quarter of 1950.

In his report to the Committee on Appropriations (May 5, 1950), Senator Johnson of Colorado said:

"It is perhaps significant that Webster's dictionary, defining 'subsidy,' gives air mail payments an example of what a subsidy really is."

In this same report Senator Johnson further says:

"In spite of the fact that the many witnesses who appeared before our committee endorsed separation of subsidy from air mail payments in principle, the committee found no basic agreement within the industry or in the Government as to what was meant by air mail subsidy or what was being subsidized—the letter writer, the passenger, the commodity shipper, the communities served, the post office department, the national security, or the air carrier."

Strange, indeed, that no one suggested that it was the **air line pilots** who were being subsidized and yet in many instances words **have** appeared in CAB Mail Rate decisions such as the one here quoted, rendered on November 7, 1947, regarding Continental Air Lines:

"In estimating flying operations expense, we . . . adjusted the experienced cost to allow for the recent increase in rates of pay for pilots and copilots."

Back in 1941, F. A. Spencer in his "penetrating and authoritative analysis"—"Air Mail Payment and the Government" (P. 315, Brookings Institution—402 pp—$3.00) had this to say:

"If the present upward trend of patronage and profitableness of air line operations continues, the CAB will soon be faced with the problem of deciding whether rates of air mail compensation or passenger and express rates shall be reduced . . . in order to check unreasonable profits accruing to the carriers."

In that year the 16 major trunklines experienced a net operating profit of around $7,000,000—last year close to $25,000,000 operating profit was realized. In spite of this increase in profts, air mail payments are still rising. Can it be possible that the Government's subsidy of the air lines was only intended to be a form of **management profit insurance?** It is high time that air line management, the Government and the voter realize the importance of the words of CAB member, Harold A. Jones when he stated:

"In addition to the commercial importance of the expanded air transportation system, national defense considerations are vital because the air carriers provide an 'auxiliary air force' of more than 1,000 transport planes.

"The air lines of the United States employ approximately 84,000 people, of whom nearly 8,500 are flight personnel. I do not know how much it would cost the National Military Establishment to maintain and fly these airplanes and keep these pilots flying, but I am sure it would run into hundreds of millions of dollars."

There is nothing intangible about the importance of these flight personnel. No one who is familiar with their heroic contributions in World War II or the recent Pacific Airlift, where victory or defeat hung in the balance, can deny that **we are becoming more and more dependent on an "expanded air**

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ANOTHER JORDAN SOLOS—TWO TO GO

Following in the footsteps of his dad, Carl G. Jordan, Chicago based AA Captain, and his 17 year old brother who soloed a year ago, Jimmy Jordan is pictured here with his dad on the occasion of his first solo flight on his 16th birthday. Two younger Jordan's at home are clamoring for their opportunity to take the wheel. They stand before Jordan's Stinson "Voyager" which, for a private four-place plane, is unique in the fact that it has a complete air liner type instrument panel. In addition to the primary group of instruments, there is an artificial horizon, a directional gyro, an omni-range receiver, and instruments. Says Carl, Sr., "In the flying training that I have given to both of my boys, I have tried to teach them to fly right from the beginning utilizing the basic instrument group instead of the ordinary method of teaching beginners relying on 'feel' and visual reference, and it's paying off. Both Carl Junior and Jimmy are doing a bang-up job of instrument flying. They haven't had to suffer through any transition period from visual reference flying to instrument flying." Eager to keep pace with 17 year old Carl, Jr., who is now working for his commercial license and instrument rating, Jimmy is devoting every available minute to his flying career. Both boys are attending the Chicago Vocational School, studying related aviation subjects and expect to obtain an A&E rating to further bolster the technical knowledge that will assist them in their chosen piloting career. Keep up the good work, boys! Time moves swiftly on and soon it will be your turn to take your place in the air line flying scheme of things, and there are many careers not half as good.

WE'LL BE BACK *The Kimpo Airfield on the outskirts of Seoul was used by Northwest Airlines as one of its stops before the communist invasion of South Korea. When the United States Marines recently recaptured the Kimpo Airfield, called the best in Korea, the name plaque of Northwest Airlines was found intact. It is held by Sergeant Gerald Klenke, Fort Wayne, Indiana, and Lieutenant William Crockett, Baytown, Texas.*

"Aviation Week" On Monthly Mileage

In the September 11 issue of "Aviation Week," there appeared an excellent article on the air line pilots' mileage limitation proposal. ALPA's commendation to the publishers of "Aviation Week" for the eminently fair manner in which they presented the pilots' proposal. Pertinent portions of the article are quoted below:

"Bellwether case on higher pilot pay is the 14-months-old dispute between the Air Line Pilots Assn. and American Airlines. Mediation was broken off last month. ALPA wants arbitration, but the company has not agreed to it.

"ALPA DEMANDS—Big issue in American Airlines' marathon negotiations with ALPA continues to be the pilots' demand for a monthly mileage limitation to combat technological unemployment and cockpit demotions resulting from the airlines' use of larger, faster and more productive transports (Aviation Week May 15). To the carriers, the ALPA bid for more pay for less work constitutes 'featherbedding.'

"ALPA retorts that it is not 'featherbedding' when employes ask to share the increasing productivity resulting from technological advancement. 'Mileage limitation,' according to ALPA President David L. Behncke, 'has a terrific national defense aspect since it will mean more trained pilots available for national defense.'

"Behncke points out that the National Labor Board suggested the possible future need for mileage limitation when it set up the pilots' basic pay structure in 1934. Railroad engineers now have a limit of 4800 miles per month.

"ABILITY TO PAY—ALPA asserts flatly that American (and presumably other carriers) can afford the mileage limitation.

"ALPA says that when applied to Convairs the proposal calls for $17.78 more pay for flying 73 hr. than is now given for the full 85-hr. monthly maximum. A DC-6 captain would get $21.31 more for flying 70 hr. than he has been receiving for the 85-hr. maximum.

"(Airline officials expressed belief that pilot demands for other benefits, such as on-duty time limits, might, in practice, restrict a pilot's maximum monthly flight time to considerably less than 70 hr.)

"At present, an AA Convair first pilot with eight years' seniority could earn a theoretical maximum of $1020 monthly if he flew the 85-hr. maximum, half day and half night. That's about $12 an hour. The new formula would raise the pilot's pay to about $14.22 an hour—equal to an 18-per cent wage hike.

"A DC-6 first pilot can now earn a theoretical $1183 monthly under the current contract, assuming eight years seniority and 85 hr. flying time, half day and half night. That's around $13.92 an hour. The new formula would raise his pay to about $17.20 an hour—an increase of more than 23 per cent.

"UNION COMPARISONS—ALPA contends its demands are far from unreasonable. It says that under the new formula a Convair pilot would get only about 33 per cent more pay than was specified for a DC-3 pilot in the original NLB Decision 83 wage scale set up in 1934. For DC-6 pilots, the pay would be 55 per cent over the scale originally established for DC-3s.

"The union points out that from the standpoint of plane miles flown, the Convair is 32 per cent more productive than the slower DC-3, and the DC-6 is 41 per cent more productive. Passenger-mile productivity has, of course, increased even more.

"ALPA argues that AA in 1945 cut the work week of all unorganized employes from 48 to 40 hr. with no decrease in pay. This is roughly proportional to what the pilots are now requesting. In addition, ALPA declares, the unorganized employes were later given substantial pay increases.

" 'In 1933, the legal minimum wage was 30 cents an hour, with a maximum of 48 hr. work per week,' the union continued. 'Today the legal minimum is 75 cents an hour, with a maximum of 40 hr. This is an increase of 250 per cent in wages and a decrease of more than 16.6 per cent in working hours. Based on these figures, pilots would receive about $1950 for 71 hr. of flying on DC-3s.'

(Continued on Page 12, Col. 1)

---AND IT RAN OUT OF GAS

The roar of its four engines silenced for lack of fuel, this Navy R5D transport is shown still afloat after its crew had abandoned the plane. The forced landing at sea was made 47 miles southwest of Midway Island during a routine flight and was only 15 minutes from its destination when it ran out of fuel. All seven crewmen aboard escaped, using inflated life rafts, clearly demonstrating the possibilities of safe rescue when forced down at sea, and it makes one wonder if we are not inviting disaster by failing to equip certain of our domestic aircraft with life vests and life rafts when flights across broad expanses of water are made, such as over Lake Michigan, on coastwise flights, etc. When the first domestic air transport sinks beneath a domestic body of water and life is lost, our regulatory agency in Washington will think seriously of requiring such life saving equipment. Scenes like this one would be far more common were it not for the continuous fight the air line pilots wage for sufficient fuel, plus the vital margin to be able to complete their flights safely.

LET'S CHECK THAT PROP CAREFULLY GRAND-'POP'

Captain Earl Hale, Northwest Airlines check pilot and a veteran of 20,000 hours, recently took his eight-month-old grandson, Earl William, on a personal inspection tour of a big airliner at Seattle-Tacoma International airport. The way this future ALPA member is giving the prop the once over would indicate that he is not a bit concerned about its size, but rather wants to make sure that it is free of nicks and serviceable. Later Captain Hale checked out young Earl at the controls of a Boeing 377 Stratocruiser. The future air line pilot hasn't yet been up in the air, but his proud grandfather who has been a Northwest pilot for eighteen years and who is a member of NWA Council 54, Seattle, says it won't be long before he gets his first plane ride.

"Keep Things Within The Family"--Parrish

In the September 18 issue of "American Aviation," an article appeared, presenting the ALPA plan for organizing independent crafts and classes of employees wholly within the air line transport industry.

As long ago as 1946, ALPA first set forth its aims for the creation of strong independent representing organizations for each of the classes and crafts in the air transport industry. As then, ALPA today strongly endorses a program wherein the air line mechanics, the air line communication employes, the air line agents, the dispatchers, the stewardesses, and all other classes of air line workers must each build up, and support their own representing organization. Each class and craft must employ, train, elect, or otherwise engage their own representatives to build and maintain something that is theirs—something to serve them endlessly and continuously, day after day, throughout the years in their hundreds of never ending labor management problems—a representing organization to build up each class or craft of employment into something to be proud of and not submerged with the masses. An aviation sub-section of some large all-inclusive international transport union cannot adequately serve the needs of an employee class or craft in the air line industry. Such representatives are wholly unfamiliar with the problems of that class or craft. Moreover, such representation is but a small arm fastened to the main body of the union, whose main interest lies in other fields of transportation other than air line transportation and civil aviation.

Acknowledging the superiority of an organizational plan which has its basis establishment of representing organizations completely within the industry, without domination or any action whatsoever with related forms of transportation, Editor Wayne Parrish states: **"The ALPA independent craft plan is far superior to outside domination. Keep things within the family."**

Following is quoted in its entirety the "American Aviation's" editorial:

"Now that the Air Line Pilots Association is moving ahead in its long-range plan of organizing or aiding in the organization of independent craft unions covering stewardesses, mechanics, dispatchers, communications employes, and other groups of employes in the air line industry, a word about the Brotherhood of Railway Clerks would seem to be in order.

"Whatever one's views about ALPA may be, one of its prime assets has been its independence from old-time unions associated with other forms of transport. Since unions are accepted as a permanent part of the air line industry, such unions should not be allied with competing forms of transportation. Some air line employes have been misled by the Brotherhood of Railway Clerks into thinking they were joining a union basically concerned with transportation. The actual fact is that the Railway Brotherhood is too closely tied up with the railroads for the comfort of either air line employes or air line managements.

"There is good reason to believe that the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employes, is supporting wholeheartedly the vicious campaign by the railroads against the air lines.

"George M. Harrison, Grand President of the Brotherhood of Railway Clerks, was quoted in the December, 1949, issue of Railway Progress, as follows:

"'. . . We are opposed to government operation and ownership of the railroads and *to subsidies and special favors to any mode of transport.*

"'. . . Cooperation by labor and management to promote the future security and prosperity of the industry and the employes is essential to both. The Railway Labor Organizations *welcome an opportunity to cooperate with management (railroad) in the solution of problems of mutual interest.*'

(Italics ours.)

"This seems to make it clear that the BRC has teamed up with the railroads in their movement to sabotage the air lines in relations with the government and public. The charge of subsidy leveled by the railroads against the air lines is well known. No union can work with railroad management against the air lines and at the same time work in the interest of air line employes. The railroad union has spent a disproportionate amount of time and effort in trying to get entrenched in the air line industry, more than is justified by the number of employes involved.

"Air line managements are unable to tell their employes the true story of the railroad management-union line-up for fear of violating the law. But air line employes might well do their own thinking and remember that they are in a competitive transportation industry that can be hurt severely by the con-

(Continued on Page 7, Col. 3)

An Unbelievable State of Affairs

In our business, air line transportation, many strange things happen. Here's an example: On December 1, 1948, the CAB approved CAR 61.56, providing for flight engineers in all air line cockpits of aircraft. Today, years later, on certain air lines we have the flight engineers, but no flight engineer stations. And what's more the aircraft manufacturing companies are not providing engineer stations in certain new aircraft. This proves that the CAB is not regulating the industry, but instead the industry is regulating the CAB. Indeed a deplorable state of affairs. The picture is only a mock-up, but it's also a mock-up of non-compliance and outright defiance of the CAB and their CAR 61.56. How long will this disgraceful state of affairs go on? One day soon, someone will be called on for straight answers and double talk will not be enough.

DEFIANCE EXTRAORDINARY

In defiance of CAR 65.16, directing that flight engineers be a part of air line cockpit crews, certain manufacturers have failed to build into their aircraft a regular flight engineer station at which the engineer may function as a full-fledged crew member in the furtherance of air safety. Other manufacturers, even long before the CAB promulgated its flight engineer regulation, provided a flight engineer station fully equipped with all the necessary instruments and controls to enable the flight engineer to fulfill his duties properly as a crew member. Pictured here is a flight engineer at a proper flight engineer station aboard an Eastern Air Lines Constellation. It reflects real top-level operating methods, doesn't it? Unquestionably, with the development of full crew coordination and delegation of cockpit duties under the command of the captain of the crew, the flight engineer can give great assistance in the operation of the aircraft, materially reducing many of the burdens and details shouldered by the pilot members of the flight crew. Why has not the CAB, by enforcing its own regulations, required all manufacturers to provide flight engineer stations so that these members of cockpit crews can get off the jump seat and contribute a full measure of assistance and safety as a bona fide crew member? Present non-compliance is ridiculous. When anyone hires a secretary, he furnishes her with a typewriter and desk. Need more be said?

TEN YEARS AGO

The recent approval by a House committee of a Senate passed bill, providing for the construction of a new airport for our nation's capitol, brings to mind the activities of the Air Line Pilots Association in Washington, D. C., during the late 1930's, in their endeavor to obtain an adequate and safe airport for Washington, D. C., to replace the outmoded Washington-Hoover Airport.

The September, 1940 issue of the AIR LINE PILOT, ten years ago this month, contained an interesting outline of what transpired over a decade ago during the air line pilots' fight for a new capitol airport:

"Background—In the February 1940 issue of the AIR LINE PILOT, the following by-line article appeared:

'The President had a dream and the pilots a headache, and they both decided to do something about it.

'Washington's Gravelly Point Airport is rapidly nearing completion. It will, when finished, be one of the finest airports in the world, rivaled only in size and modernistic facilities by New York City's LaGuardia Airport—both truly replicas of the airports of tomorrow. Present estimates are that Gravelly Point will be completed and in use by Labor Day.

'To learn how the move, "Get-an-airport-fitting-to-the-nation's-capitol" started, it will be necessary to reverse the scrolls of time two years and eight months. The line pilots who had been squeezing their huge planes in and out of the Washington-Hoover Airport for a long time decided to do something about it.'

"Pilots Decided to Do Something About It—'On July 7, 1937, the pilots sent a letter to the Department of Commerce, Bureau of Air Commerce, which amounted to an ultimatum strongly indicating that they would not land at the Washington-Hoover Airport after a certain date unless definite steps had been taken to improve the Washington civil airport situation generally. This ultimatum from the men in the cockpits burst with resounding echoes in the nation's press. The Washington Times-Herald fought shoulder to shoulder with the pilots.

'Public interest was focused. The fight was on. National interest waxed hot. The question had been put and it demanded an answer—why, with the country rapidly becoming sprinkled with large modern airports, should Washington, the nation's capitol, be longer deprived of an air terminus fitting to its position in national and international significance?'

"Several Bills Introduced—'Numerous promising airport sites were considered and discarded for one reason or another. Several bills were introduced to improve Washington-Hoover, one of which was lost along the tedious avenues of legislative procedures and another was acceditably killed by presidential veto for the reason that F.D.R. considered the Washington-Hoover site too restricted.

'Scenes shifted rapidly. Many interests were at work. The ALPA line pilot's interest was safety. The Camp Springs site located several miles to the southeast of Washington was discovered and proposed by President Behncke. Pilots favored this site because it was level and obstruction free. A bill was introduced to make Camp Springs, a mile-square airport, possible. Real estate intrigues were charged, groundless but nevertheless purposeful, on the floor of Congress during the last hours of the last session of the Seventy-Fifth Congress, and the bill was killed.'

"Fate takes a Hand—'Dark clouds of defeat for the Washington airport project loomed. Then fate took a hand. One night President Roosevelt dreamed he saw a beautiful silver bird crash, burst into flames, and burn the occupants. Then things happened quickly. And now, Washington has an airport that gives promise of rivaling the finest airports in the world. Thusly, another strangely interesting story ends with the undeniable goddess, Public Opinion, writing the finis.'

"On Nov. 29, 1938, dredges started operations to build the made-land on which the greater part of the new Washington national airport now is located. On September 28, 1940, one year, nine months, and 28 days later, at very near the exact spot where the first dredge brought up the first soil from beneath some ten feet of water of the Potomac River, a very impressive scene was enacted. Franklin Delano Roosevelt, President of the United States, together with a host of aviation dignitaries and in the presence of a large audience, dedicated the giant new airport to the air commerce and military defense of our country, thereby deeply etching a truly great and timely accomplishment on the scrolls of historic events of our country."

And that isn't the whole story. Let's look at the last chapter today, ten years later.

After the bill to build Washington's International Airport was killed by the Seventy-fifth Congress, the army acquired the Camp Springs site and developed Andrews Field. And the Eighty-first Congress passed S. 458, on August 25, 1950, authorizing an appropriation of $14,000,000 to build a Washington National Airport—but where? You guessed it—way out in the country, miles outside Washington. Summary: Washington lost the only natural site for its commercial airport when it lost the Camp Springs site by an action that in forthright words has, in foolishness and costly mistakes, no equal.

ONE HUNDRED YEARS OF FLYING

More than a century of flying skill is represented by the combined experience of five United Air Lines' captains who recently received special training in Boeing Stratocruiser operation, preparatory to their assignment on the company's new Los Angeles-Honolulu route. The new route from L.A. to Hawaii makes possible considerable savings of time to Hawaii-bound vacationers from southern California. No longer will they have to travel north to San Francisco to board a Honolulu flight. The veteran airmen and others in the group, shown at San Francisco, are (from left): Captain C. W. Hudson; A. Ward, CAA inspector; W. A. Bentson, chief flight engineer; Captain E. J. Eshleman, Council No. 57, UAL-Los Angeles; Captain G. T. Douglass, Council No. 34, UAL-San Francisco; Captain L. C. Brown, Council No. 12, UAL-Chicago; Captain E. L. Remelin, Council No. 57, UAL-Los Angeles; H. C. Worthington, assistant flight manager, and F. S. Angstadt, flight manager.

Within the Family

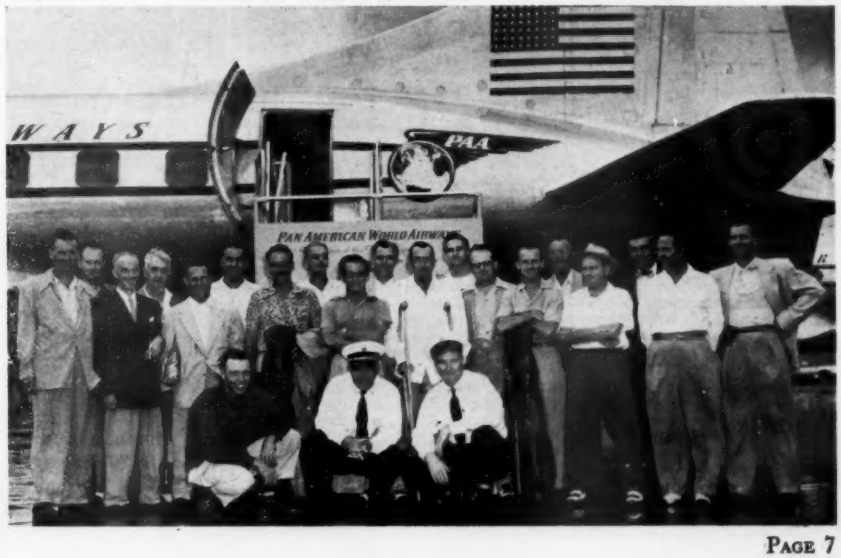
(Continued from Page 6, Col. 3)

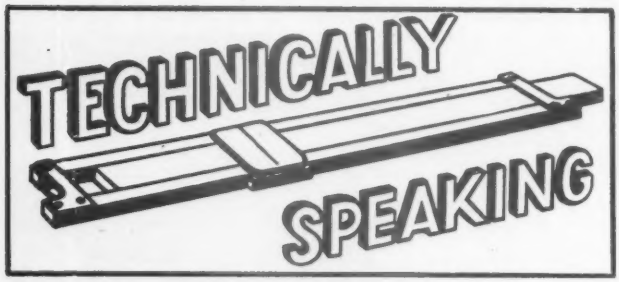
stant railroad barrage of propaganda. And what hamstrings the air line industry also harms the employes.

"In other words, air line unions should reflect air line thinking, not railroad thinking. The railroad union has made too many penetrations into the air line industry for any comfort. While we are not endorsing union activity one way or another, as such, we think it is time to become alert to the threat from the railroad side of the fence. Let air line unions be organized within the air line framework, independent of other forms of transportation. The ALPA independent craft plan is far superior to outside domination. Keep things within the family. The railroads and railroad unions have nothing good to offer."

AIR LINE GOLFERS

Pan American World Airways normally is not in the rent-a-plane business—especially when the aircraft is a 40-passenger Convair. But the situation was—well different when two of its pilots wanted to rent a plane to fly the Miami Shores Country Club golf team, of which they are members, to Key West, Florida, for a week-end of golf. And they rented the 40-passenger Clipper from their bosses and the party took off for Key West. It's unusual, but that's what happened. Pictured here is the group just before takeoff. Kneeling (L. to R.) PAA Steward W. W. Salters, Co-pilot "free rider" D. W. Taylor, and Captain Robert Crane, ALPA member of Council No. 100, PAA-Miami.





AIRCRAFT LIGHTING PROGRESS

Editor's Note: Since aircraft speeds have almost doubled during the past decade and air traffic generally has increased tremendously, a revamping of our present-day inadequate exterior aircraft lighting has been a "must" project. ALPA's Engineering & Air Safety Department has worked closely with the CAA Experimental Station at Indianapolis in studying and evaluating new lighting systems. Early in this program, Headquarters appointed Captain Robert A. Stone, Council 12, UAL, to act as ALPA's pilot representative in the development and integration of a superior aircraft lighting plan. The following analysis of the aircraft exterior lighting problem, written by Captain Stone, embodies certain pertinent recommendations arising out of his activities as a member of the group who have devoted many hours to the development of better exterior lighting for aircraft.

Flashing navigation lights for transport airplanes were developed at a time when airspeeds were in the 180 mph bracket; unfortunately these lights are inadequate now that we are in the 300 mph bracket. When the weather restricted the visibility of navigation lights to 3 miles the pilots of the 180 mph airplanes had 30 seconds to avoid a head-on collision, but the pilots of 300 mph airplanes now have only 18 seconds. Under similar weather conditions the pilots of future 600 mph airplanes will have just 9 seconds to avoid such a collision. Flight tests conducted during the past 15 months clearly demonstrate that airplanes must have two separate lighting systems, each of which will perform a distinctly different function.

The first system must make the airplane highly conspicuous at long range so as to attract the attention of other pilots early enough to eliminate all possibility of collision. This objective can be accomplished best by utilizing a rotating light which has a relatively narrow, but very intense beam. The human eye "sees" this beam as a flashing light which is bright enough to penetrate restricted atmospheres for great distances. The speed of rotation and the beam angle (horizontal) must be such that the duration of the apparent flash is in the range of 0.4 to 0.6 seconds and a rate of 70 (plus or minus 10) flashes per minute. No other color than red should be employed in this light since psychologically that is by far the most effective color and affords the highest degree of contrast against a background of city lights or a star-filled sky.

Such a light could produce a 4,000 candlepower flash and would be observable from any collision course since it sweeps the entire 360 degrees around the airplane. The rotating beam must also have a vertical spread to make it observable to pilots flying slightly above or below the lighted airplane, and to make the lighted airplane observable while it is banked in a turn. This beam angle must be a minimum of 50 degrees (25 degrees above and 25 degrees below the horizontal when the airplane is in straight and level flight).

The high intensity light is most suitably located at the top of the vertical fin where it can be installed within a streamlined housing. Further, this position is unique in that it is the most observable point on an airplane from any angle of approach and it effectively eliminates the objectionable halation (reflection) into the cockpit of the lighted airplane which results when other locations are selected. At least four such lights are in varying stages of development at this time by different manufacturers.

The second system of lights must serve the function of defining the airplane's course, relative speed, and attitude at closer range. This system should consist of the conventional navigation and fuselage lights, but with certain modifications. Primarily, the flashing rate for the wing tip and fuselage lights must be increased from its present value of 40 flashes per minute to a rate of 70 (plus or minus 10) flashes per minute. Equally necessary is a marked increase of candlepower in all these lights. Better conspicuity and easier "tracking" of the airplane result from faster flashing rates since the airplane does not move so far between individual flashes.

The wing tip and fuselage lights should continue to alternate so as to provide the necessary "jump effect" which increases conspicuity by forcing the eyes to focus first on the wing tips and then on the fuselage. Synchronized with this portion of the cycle, the tail light assembly should emit 70 flashes per minute composed of 35 white flashes and 35 red flashes. Flashing rates slower than 70 per minute result in a noticeable loss of conspicuity and ease of tracking while faster rates are objectionable since the lights appear only to "twinkle" rather than to flash with a resultant loss of effectiveness. Because of this, all airplanes should be required to be equipped with a system of lights that flash 70 (plus or minus 10) times per minute.

The brightness of navigation and fuselage lights is presently limited by the size of the fixtures installed on the airplanes. These fixtures accommodate a bulb measuring 1¼ inches in diameter and cannot take the new 1½ inch bulb which produces four times as much light. The 1¼ inch bulb is now carrying the maximum permissible heat and a larger diameter bulb is the only solution to obtaining increased candlepower. Faster airspeeds necessarily demand greater light penetration to provide pilots with the proper amount of time to evaluate the information which the lights were intended to convey and greater penetration can only be obtained with increased candlepower. All present airplanes should be modified, and all future airplanes should be designed with lighting fixtures capable of handling the larger sized bulbs if good standards are to be maintained.

The work of the past 15 months has entailed the evaluation and rejection of many alternate systems of Aircraft Exterior Lighting; a few suggested systems are yet to be tested, but it appears that the system described above is by far the most promising in the foreseeable future.

Pictured here are the CAA representatives and the ALPA pilot representatives who attended a CAA exterior lighting demonstration on September 13, 1950, at Chicago. Shortly after this photo was taken the group boarded a UAL DC-3 to observe the flashing lights on the CAA Boeing-247. The prime purpose of the test was to determine the flashing frequency rate most suitable for effective visual observation. All ALPA participants in the tests were in agreement that a flashing speed of 70 to 80 flashes per minute on the wing lights and 40 flashes per minute on the tail lights created the most desirable lighting pattern. Seated (extreme left) is Captain R. A. Stone, Council No. 12, UAL, who is the head ALPA representative working with the CAA on the matter of exterior aircraft lighting. Standing (left, rear) is W. A. Collins, CAA representative of Washington, D. C., who heads the lighting project. The flashing air line aircraft navigation lights were first proposed by ALPA.

In an effort to arouse maximum interest in its annual meeting with management the United Air Lines ALPA Safety Committee Chairman H. L. Jacobson, UAL, Council 33, Denver, circulated the above cartoon to the Safety Committee members, announcing the forthcoming "gripe" meeting with management which will be held on or about November 28 at San Francisco. Reports reaching Headquarters have indicated that last year's "gripe" meeting with management on maintenance and operational problems was productive of good results. This year's meeting should prove even more worth while.

WASHINGTON SLIPSTREAM

The sudden change from a peacetime to an emergency economy after the decision to go all out in the Korean crisis has brought tremendous changes throughout the country, all of which started with an overnight change in the mood of Congress.

Prior to the U.N. police action, Congress was hell-bent for strict economy in all government agencies. Defense and civilian agencies were faced with the stiffest operational and personnel cuts in years. After the go signal by President Truman, these good intentions were set aside and an emergency economy was put into being as fast as Congress could legislate.

One of the acts passed is just beginning to make itself known in our everyday life. That is the DEFENSE PRODUCTION ACT OF 1950. Management, labor, industry, and consumer must again prepare to live with priorities, allocations, credit curbs, price ceilings, rationing, and wage stabilization. Special stepped-up defense programs are interrupting the well-laid plans of business and finance alike in this current emergency.

In seeking to provide the language for the DEFENSE PRODUCTION ACT, precedent was found in the history of emergency measures developed during World War II, many of which are backed by legal precedents from the Supreme Court.

THE DEFENSE PRODUCTION ACT was approved by Congress September 1, 1950. Congress passed it purely on an emergency basis and for one sole purpose—to promote the national defense—a term which runs through the whole text of the Act, shapes the extent of controls, and explains the reasons for them. The term national defense, of course, includes all government agencies, departments, either directly or indirectly concerned with national defense or operations and other activities in connection with the welfare of the country.

With minor exceptions, complete authority to invoke emergency controls is vested in the President. Hoarding and profiteering are banned, as far as it is legally possible to do so. Naturally, price and wage stabilization are given full attention in this legislation. Price and wage controls are tied closely together. When price ceilings are imposed with respect to a particular material or service, wages in the respective industry or business producing the material or performing the service must also be stabilized. The President moved quickly after receiving authority from Congress in placing the National Defense Act on the statute books by his own signature.

Covered in the Act, briefly, we find PRIORITIES-ALLOCATIONS . . . to direct the distribution of materials for selection purposes necessary to the national defense.

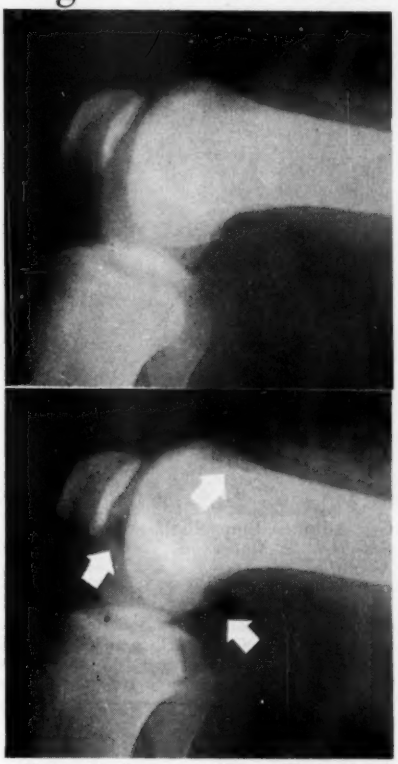
Business has been provided exemptions to anti-trust legislation and may enter into voluntary agreements and programs without fear of anti-trust laws. This permits agreements with emphasis on production and distribution related to national defense.

The President receives RATIONING powers to control consumer goods at the retail level. Rationing, price, and wage controls will be administered through plans similar to those developed by OPA in World War II.

Title 2 of the new Defense Production Act gives the President REQUISITION POWER which will permit the taking over of needed property after due compensation to owners for the taking. Real property and personal property, equipment, supplies, parts, and the materials and facilities required to

(Continued on Page 10, Col. 1)

High Altitude Pains

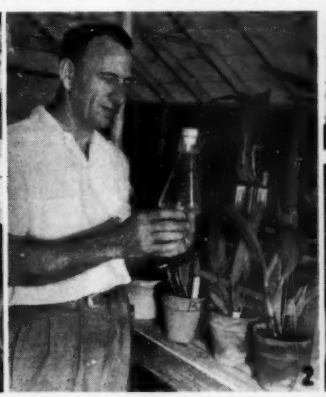


Pictured above are X-ray films of volunteers, taken in the Northwestern University's high-altitude test chamber, indicative of what occurs at an altitude of 38,000 feet. In the upper photo is a radiograph of a knee taken before the subject "went up." It shows no trouble present. Arrows in the lower radiograph, taken at the stratosphere level, show clearly air pockets around the knee joint. While the cause is unknown the condition is extremely painful.

ALPA Regional Vice-President Finds Orchid Raising Relaxing

The AIR LINE PILOT editor, in the July, 1950, issue made a request for photographs and descriptive details from air line pilots about their hobbies. Here's the first response brought in by the morning mail man. Now where's the one for the next issue? Somebody please get busy. Captain Luther "Luke" Caruthers, ALPA Regional Vice-President, and member of Delta Council No. 44, Atlanta, finds raising orchids a relaxing and rewarding hobby. He has been growing orchids in his backyard greenhouse since 1946, and at present has about 400 blooming-size plants. Since six to eight years are required for orchids to reach full development, Luke usually buys half-grown plants to stock his greenhouse. Contrary to their delicate appearance, orchids are hale and hearty flowers. They require a watering once each week and the leaves must be mist sprayed daily. If it's not convenient at the moment to work with some plants which need repotting, he can remark casually, "Oh, I'll do that next year," secure in the knowledge that no harm will be caused by the delay. Like most air line pilots, Luke is a perfectionist and plans to develop and retain only the most prolific plants and those with the extra large blooms. Pictured below (Photo 1) is Luke making with the insecticide, a thrice yearly operation. Caruthers (Photo 2) examines a seed flask which, for almost a year, houses the orchid seedlings. At this stage of development the orchid plant is only 3/10 of an inch high. Pictured here (Photo 3) is Captain Caruthers supplying the life giving water orchids require for existence. Luke is shown wrapping fern roots (Photo 4) around the orchid division preparatory to packing it firmly in the waiting pot where it will continue growing on air and water. There is nothing wiser than to have one or even more hobbies. It keeps the mind and body active, sharp, and alert. And without these ingredients, people soon become lazy, and following laziness comes dullardness. Nearly all air line pilots have hobbies—let's hear about yours and send along some snapshots.

1



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CAPITAL'S "SPIRIT OF WORLD PEACE"

Another Constellation was recently added to the fleet of Capital Airlines. Mrs. Franklin D. Roosevelt, United States representative to the United Nations General Assembly, christens the new Constellation "Spirit of World Peace," by strewing flowers on the fuselage. J. H. "Slim" Carmichael, President of Capital Airlines, looks mighty pleased during the christening ceremony. With the addition of Constellations to its fleet and three super DC-3's, Capital Airlines joins the ranks of modern equipped air lines utilizing post-war larger, faster, and more productive equipment. Reports indicate that Capital is especially pleased with the performance of the super DC-3 and that passenger acceptance of this transport is extremely high.

Washington Slipstream

(Continued from Page 9, Col. 2)

manufacture, service, or operate equipment, supplies, or parts—all may be requisitioned.

Of extreme importance to the air line pilots is "PRICE-WAGE STABILIZATION." These are powers, delegated to the President of first rate importance. Memories of the last war will serve to suggest the problems ahead in this field. Wage and price powers now in the hands of the President are on a stand-by basis, President Truman may use them selectively or all out, or not at all The authority to fix wages is referred to throughout the bill as authority to 'stabilize' wages rather than "freeze." The important emphasis on this view is an explanation by the Senate Committee that there is no intention to apply an absolute wage freeze any more than to apply an absolute price freeze. Where rigid stabilization would create gross inequity or defeat the purposes of the Act, sufficient flexibility is provided to permit necessary adjustment in wages, salaries, and other compensation.

This is the essence of the difference between a wage freeze and wage stabilization. In short, this means stabilization is flexible and does not raise an absolute bar to merit increases, incentive payments, additional compensation for assuming added responsibility, and the like. However, the Act is drawn to prevent any evasion of wage controls; or in other words, new forms of payment which may not be wages, such as vacation and holiday payments, night shift and other bonuses, incentive payments, year-end bonuses, employer contributions to or payments of insurance or welfare benefits, employer contributions to a pension fund or annuity plan, payments in kind, and premium overtime payments.

WAGE-PRICE ADMINISTRATION controls, if and when imposed by the President, must be administered through a new independent agency (already created) which may not delegate the enforcement of price or wage controls to other agencies.

LABOR DISPUTES . . . Defense production demands an over-all speed up and requires quick and effective settlement of labor disputes. Naturally, price and wage controls make a settlement of labor disputes urgent. The Act authorizes the President, after consulting with management and LABOR, to fix the policies which he considers necessary to settle labor disputes which concern the national defense.

The President has powers to set up boards or commissions to carry this out. However, Congress declared its policy of relying on management and labor to make every effort to settle their own disputes through COLLECTIVE BARGAINING AND CONCILIATION. Any action taken by the President under the Act in settling labor disputes must be in line with the policies of labor laws which are now enforced . . . **which, of course, includes the Railway Labor Act, and Title II thereof covering the air line pilots and all other classes and crafts of employees in the air line industry.**

FLYING CHAPLAIN

One of the busiest men of the U. S. Occupation Forces is the Rev. Thomas B. Doyle, of Lowell, Michigan, U. S. Army chaplain, stationed with the U. S. 15th Constabulary Squadron in Weiden, Bavaria. Wherever Americans live, in his 250 square mile territory, the chaplain makes a Sunday call to deliver his spiritual message and because of his scattered congregation, he uses a light plane, loaned by the army, to carry him on his rounds. Chaplain Doyle is pictured below conducting a church service in the open attended by members of our Occupation Forces. Packing a small suitcase (Inset) with his Parson's gown and hymnals, Chaplain Doyle readies himself for a long day of sermons and many miles of travel.

ALPA FCU Financial and Statistical Report of August 31, 1950

BALANCE SHEET

Assets

Loans	$191,507.93
Cash	14,614.31
U.S. Bonds	126,995.32
Federal Savings & Loan	30,000.00
Furniture & Fixtures	2,666.08
Prepaid Expense & Misc.	170.70
Total	$365,954.34

Liabilities

Shares	$357,290.69
Reserve for Bad Loans	1,619.35
Undivided Profits	891.66
Profit	6,152.64
Total	$365,954.34

STATEMENT OF INCOME & EXPENSE
(Year to Date 1950)

Income

Interest on Loans	$10,478.63
Investment Income	772.38
Other Income	14.51

Expenses

Office Supplies	$ 460.62
Educational Expense	121.11
Loan Insurance	675.88
ALPA Reimbursement	3,200.00
Depreciation	410.16
Miscellaneous	245.11
Total	$5,112.88
Net Profit	$6,152.64

Statistical Information

Number of Members	1,553
Number of Potential Members	8,620
Loans Made Since Organization (Number)	791
Loans Made Since Organization (Amount)	$419,910.88

CAB CLEARS EAL CREW IN P-38 CRASH

On September 22, 1950, almost 11 months after the fatal P-38 air collision with an Eastern Air Lines DC-4, on November 1, 1949, near Washington International Airport, Washington, D. C., the Civil Aeronautics Board adopted its accident investigation report blaming the pilot of the P-38, Erick Rios Bridoux, a Bolivian national.

ALPA members will recall it was at the CAB hearings conducted after the fatal EAL-P-38 crash that its representatives **were limited with respect to the statements they would be permitted by the hearing officer to place into the records and limited as to recommendations they could make, privileges which had always been accorded to the air line pilots in the past.** These facts coupled with the failure of the CAB investigators to call any of the air line pilots' air safety representatives who served as witnesses on the investigating teams, reduced the pilots' presence to a mere and meaningless formality, which culminated by the withdrawal of ALPA's representatives from the hearing on the afternoon of November 14, 1949.

In an Association Press Release of that date, President Behncke of ALPA stated that **"the methods and procedures used in the Washington National Airport collision crash investigation are 'completely and basically wrong,' and indicated that the pilots felt that the way in which the hearing itself was conducted was the best possible argument per se for reestablishment of the independent Air Safety Board."**

As a result of this accident, ALPA Headquarters submitted four Air Safety Recommendations to the CAB, numbered 263, 264, 265, and 266:

ASR 263—"That all military and private airplanes be separated from air line planes and air line traffic at all high density traffic airports used by scheduled air lines, except where no other airports are available in the area. In short, busy air line airports should exclude all traffic of military and private airplanes which should be diverted elsewhere to prevent collision accidents such as happened November 1, 1949, at the Washington National Airport. At this airport it should be noted that several military airports are in the immediate vicinity, one being actually within gliding distance."

ASR 264—"That distinctive markings for all air line aircraft for preventing collision accidents during daylight hours be made mandatory at the earliest possible time. Orange and black or yellow and black (colors to be determined by test) checkered pattern or other design, be painted on top of vertical tail, ends of horizontal tail, wing tips, top and bottom of fuselage and on the nose of fuselage and any other portion of the airplane to make it easily distinguishable and identifiable during daylight hours. All marking schemes to be determined by proving tests in flight and on ground."

ASR 265—"That study and tests be made at the earliest possible time to create a method of identifying by code the flashing lights of all air line airplanes carrying passengers, and that all other aircraft, in conformance with proper revision of the CAR, give such aircraft right of way at all times. It is recommended that three (3) or four (4) dots and then one (1) dash or some other suitable and effective variance combination be used, to be determined by flight tests, affording distinctive and unmistakable identification for all air line airplanes to cause them to be easily distinguishable to military and other air traffic flying around airports or along the federal airways, and identify unmistakably all air line aircraft while on the ground during the hours of darkness."

ASR 266—"A study of radio phraseology should be made to carefully select and formulate words and phrases so that partial reception, due to improper and difficult phraseology, does not create unsafe operating conditions."

Nothing has been done about these recommendations. Why?

Next in this article are the findings of the CAB respecting the EAL-P-38 tragedy, and the CAB's statement as to the probable cause of the accident clearing the good names of the late Captain George Ray and Copilot Charles R. Hazelwood, EAL crew members of the DC-4:

"Findings.

"1. Eastern Air Lines, its crew, and its aircraft were properly certificated.

"2. Erick Rios Bridoux held a valid limited pilot certificate issued by the Administrator of Civil Aeronautics, but the aircraft which he flew was not certificated, nor had any authorization been given by the United States Government for its flight of November 1.

"3. No difficulty was experienced in the operation of the Eastern Air Lines' DC-4 or any of its components, including the radio.

"4. Other than the erratic engine speed and manifold pressure of the right engine of the P-38, there was no mechanical trouble experienced in its operation.

"5. Visibility in the vicinity of the Washington National Airport at the time of the accident was 15 miles; ceiling was 6,500 feet, and surface wind was from the northeast at 20 to 25 miles per hour.

"6. Approximately two minutes before the collision, Eastern Air Lines' DC-4 was on downwind leg, at which time it was cleared to land number one on Runway 3.

"7. The P-38 was 2½ to 3 miles south of the end of Runway 3 on a high straight-in approach to that runway when the tower observed the Eastern flight in a continuous turn from the downwind leg to the final approach about 1½ miles west to southwest of the approach end of Runway 3.

"8. The pilot of the P-38 attempted to land

(Continued on Page 14, Col. 1)

The Will to Win

Too old to join the army, these South Koreans volunteered their labor, without charge, to the United Nation's forces who are driving the Red menace from their homeland. They are putting their aged backs into the fight against the Reds by distributing rocks and fill in an airstrip under construction. The utilization of primitive manpower in airport construction in the Far East is typical of similar construction projects completed during World War II, in India, Burma, and China, when thousands of natives contributed their effort in the building by hand of many vital airstrips.

Another First---Gas-Hungry Jet Fueled Aloft

A F-84 jet, during a test of the British "probe-drogue" method of in-flight refueling, approaches the funnel at the end of the fuel hose extending back of the B-29 tanker. (INSET, UPPER RIGHT) Here is shown the F-84 about to make a refueling contact with the funnel shaped drogue. The fighter pilot maneuvers the "probe," extending from the left wing of his plane into the funnel, after which the two are automatically coupled and fuel is transferred. These photos were taken preparatory to an attempted first non-stop jet fighter flight across the Atlantic. Of the two planes which attempted the flight, one ran out of fuel over Labrador, causing the pilot to bail out; the other plane landed in Maine because of bad weather. Col. David C. Schilling (INSET, LOWER LEFT) is greeted at Mitchell Field, after completing the first non-stop trans-Atlantic jet plane flight—a distance of 3,300 miles in ten hours. At right is his mother, Mrs. Margaret Schilling, and left is Miss Jean Hunnicutt, a friend. And the Colonel has scrambled eggs on the visor of his cap and more color than a Fourth of July parade on his proud chest—"Congrats" Colonel.

ALWAYS THE SPEED TREND IS UPWARD

With the propellers of its four regular engines feathered, a B-17 bomber, especially equipped with a Pratt and Whitney T-34 "Turbo-Wasp" mounted in its nose, is shown flying along at normal flying speed during a demonstration over the Navy's air test center at Patuxent, Maryland. The "Turbo-Wasp's" rating of 6,000 horsepower is greater than the combined power of the four 1,200 horsepower piston engines used in the World War II bomber. The new engine is expected to enable warplanes to attain speeds of 600 miles an hour and still have a far greater range than jet planes because of greatly reduced fuel consumption. Despite the reticence of most air line officials respecting their new equipment programs, the air line pilots can see the proof in writing on the wall—first turbo prop airliners followed by true jet airliners. Unless mileage limitations are made effective to protect the health of our nation's air line pilots and the safety of the air traveling public, "dollar chasing" will bring nothing but disaster to our air transportation industry and national defense will suffer irreparable damage. In time of war, we need hundreds of planes and thousands of highly trained pilots instantly (the kind that can fly around the clock in all weather). A shrunken pool of super-duper jet transports manned by a dwindling pilot force is not the answer.

American Fears Arbitration---Why!

(Continued from Page 5, Col. 3)

"FORMULA EXPLAINED — Here's how the proposed mileage limitation formula works for American's postwar equipment:

"The base used is 13,600 plane miles monthly on DC-3s (85 hr. of flying time multiplied by 160 mph.—the DC-3's cruising speed). With the Convair's 225-mph. speed, 19,125 plane miles are produced in 85 hr. Difference of 19,125 plane miles for the Convair and 13,600 for the DC-3 gives a 5,525 plane-mile productivity increase.

"ALPA would divide this productivity increase by two, leaving 2,762 miles to be used for the pilots' benefit. The DC-3 base of 13,600 miles would be added, making a total Convair mileage limit of 16,362 by 225 mph. (the Convair speed) gives a maximum monthly flight time of 73 hr.

"DC-6 LIMIT—The DC-6, with a cruising speed of 250 mph., now enables the pilot to produce 21,250 plane miles monthly under the 85-hr. limit. Subtracting the DC-3 base mileage of 13,600 leaves a 7,650-mile increase in productivity for the DC-6.

"Dividing the 7,650 by two gives a 3,825-mile increase to be used for the pilots' benefit. Add the DC-3 base of 13,600 plane miles, and the DC-6 mileage limit per month under the new formula would be 17,425 miles. At 250 mph. this is equal to 70 hr. of flying monthly.

"The same formula works for any plane! Take half the difference between the DC-3 mileage base and any airplane's speed multiplied by 85 hr. and add it to the DC-3 base of 13,600 miles monthly.

"TOTAL PAY UP—Other contract modifications would keep AA pilots from taking a pay cut despite the reduction in hours. Mileage pay would be increased by boosting the cruising speed of the newer ships under the contract formula.

"Thus the pact in effect at present assigns the Convair a 196 mph. speed; while the new recognized speed would be 225 mph.

"There would also be an added increment called 'gross weight pay.' It would be one mill per mile for each 6,000 lb. gross weight of the ship involved.

"Thus, at present, a Convair captain's $1,020 total pay for an 85-hr. month would include $300 base pay, $584 hourly pay and $136 mileage pay. The $1,038 pay received under the new proposal for a 73-hr. month would be divided: base pay $300, hourly pay $475, mileage pay $152 and gross weight pay $111."

Tommy Gun Ala Stalin

American delegate Warren Austin, during his reading of General MacArthur's report on the Korean situation, displays a Russian-made sub-machine gun to members of the United Nation's Security Council. The gun, captured from North Koreans, was dated 1950, and MacArthur says the Russians have been and still are supplying the Red aggressors with modern Soviet weapons. There is only one thing for which the Russians are outstanding—they are the world's all time, top-level, bare faced, unmitigated liars and any American who turns Red is a fool—fatuous, silly, and completely stupid.

Who's Subsidized

(Continued from Page 4, Col. 3)

transportation system." And the pilots required to man an emergency air lift must be kept ready and able at all times to maintain our nation's air superiority.

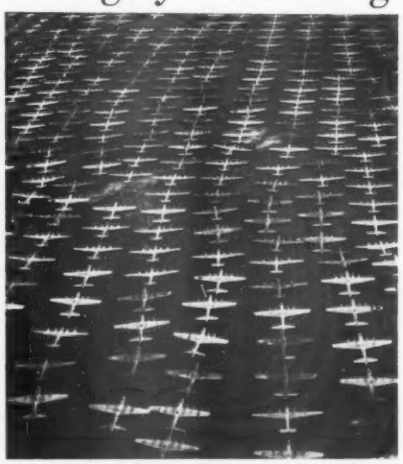
The keen insight of Congressman James Mead as he cogently outlined his views before the House of Representatives back in 1934 seems to have been lost in the shuffle. This is what he had to say on the subject of "subsidy":

. . . The pilots form a most important factor in the proper development of aviation, and as such they merit the same consideration which has been given to the industry by our Government.

In order to promote and develop aviation for its war and peace time value, the Government of the United States has agreed to a policy which calls for an annual appropriation of public money. . . . The adoption of this policy, favoring as it does those who have invested their **dollars** in the up-building of aviation, makes it compelling upon our part to see that **every major factor in aviation receives such consideration as will further aid in the development of this new method of transportation.**

To summarize, it seems apparent to all that not only does subsidy exist in the air line industry, **but the Civil Aeronautics Act was designed so as to assure this.** The fact that subsidy does exist, of course, is no unbearable social stigma nor is it peculiar to the air transport industry alone. **The government spent almost as much on eggs alone in 1949 for price support as was paid for transporting all of the air mail that year.** The moot point is who is intended to be subsidized? Air line management alone? Or are pilots and other air line personnel equally necessary to the national security? **The fact is—they are.**

Strangely Interesting



This is a post World War II scene of B-17's and B-24's. What has happened to these planes? Have they been scrapped? Quite likely, yes. If the answer is yes, isn't it about time we begin evidencing at least a little bit more good judgment and common sense? Without any desire to unearth dead cats, how many of these planes did we have in cosmoline when Stalin-inspired bloody-clawed hordes stormed across the 38th parallel? It's high time we realize that when our backs are up against the wall, there is no such thing as an obsolete airplane. Anything that can mount a machine gun and carry a bomb is better than a brave G.I. marching into the muzzle of a Red "burp" gun and death. So next time, let's keep them in cosmoline. We may need everything we have to turn the tide.

"If It Doesn't Last a Hundred Years----"

A

B

C

D

E F

The 206 delegates to the Eleventh Biennial Convention of the Air Line Pilots Association will be requested to inspect the construction of the Association's new Headquarters building in Chicago. They will, at the same time, officially dedicate the structure.

While the construction work is not complete, and it will take several more months to finish the job, the Headquarters building of ALPA is presently in an excellent state of completion for the inspection of its top echelon representing group—the delegates to a biennial convention.

Had the building been entirely completed, there would be nothing to look at but the surface. The way it is, with the outer walls complete and most of the inner structure in place, but with the greater part of the internal parts of the building still partially uncovered, the convention delegates will have an excellent opportunity to see how the building is put together, what type of material has gone into its construction, and in particular, the type of workmanship that has been insisted on by the top officials of ALPA. There is no question but that the delegates to the 11th Biennial Convention of the Air Line Pilots Association will have a highly interesting inspection tour.

.. The Headquarters officers of the Air Line Pilots Association, and principally President Behncke, are confident that the delegates will be pleasantly surprised at the progress that has been made and with the type of building that the Association will have to house its principal activities, extensive files, and records. They will be pleased to learn too, that a place of this kind in which to work will increase the efficiency of the executive, secretarial, and clerical help employed by ALPA. According to experience in industry generally, such efficiency is increased 25 to 30%.

The Convention delegates will learn that to build a building of this kind is far more of a job than just building another run-of-the-mill industrial building. It is the same as President Behncke has often pointed out—it's like building a watch—there are dollar watches and there are 21-jewel precision instruments. First comes the case and then the works, and all the wheels and parts. And in like manner, all of the jewels and mainsprings of our new Headquarters Building must be carefully fitted into place to give the building real utility, real efficiency, real value, and long life.

Since the August issue of the AIR LINE PILOT was placed in the mail, a number of the most important parts of the building have been completed. The final steps in the completing of these important jobs are pictured here. They relate to the completing of all air conditioning work with the exception of a small number of final finishing details, outer grills, etc. The finishing of the heating plant installation, the roof, a 20-year bonded job, are all illustrated by actual photographs on this page.

PHOTO A—The air conditioning foreman, Ray Tanka, shown making final checks of air ducts going to all parts of the building. Air conditioning experts have stated that the air conditioning in ALPA's Headquarters Building is second to none, complete and modern in every detail. The routing of air ducts and return ducts to all parts of the building is complete. There are no air flow bottlenecks or dead air spots. Nothing has been left to chance. Certain final refinements were made at the insistence of President Behncke so that all parts of the building would be properly air conditioned to insure maximum air conditioning efficency for employes in all parts of the building.

PHOTO B—Here the candid camera man snapped a picture of Mr. George Alroth, electrical installation wizard, top foreman for the Super Electric Company of Chicago. George has full charge of the installation of the vast, meticulous and involved network of electrical wiring conduits, appliances, and electrical automatics built into ALPA's building. It's impossible to walk more than a few yards in any direction in ALPA's building without coming in contact with some form of electrical apparatuses, wires, outlets, controls, automatics, and all the rest of it, and every other type of modern electrical appliances that go into a modern building. The electrical installation job in ALPA's building is second to none. At first, the various crafts and classes that worked on ALPA's building began taking the job in their stride, and in the building business this means production first and workmanship second. When it was learned that air line pilots are perfectionists, and must be so to live, and that the officers of the Air Line Pilots Association, who are ex-air line pilots, are also perfectionists, the order of procedure was reversed and workmanship was put first and everything else second.

PHOTO C—Here are the plumber craftsmen working with the roofing trades sealing up the vents that come through the roof from the lavatories, machine room, and all other parts of the building. All such openings are lead covered to prevent lightning strikes. No detail was overlooked.

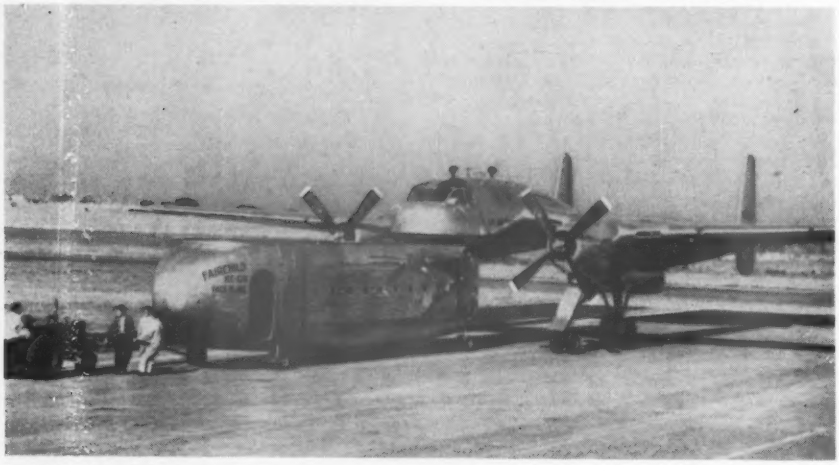
PHOTOS D, E, and F—Here is shown the application of the final roof covering. The roof of ALPA's building is made up first of Cor-O-Form, the trade name for corrugated iron which lays across the top of the steel work. On this corrugated iron was poured a slab of reinforced concrete 3 inches thick. Atop this is a leveling layer of Nailcrete varying from ⅝ to 1 inch in thickness, as a final sealer and insulator. Next, mainly for insulation purposes, came a layer of 1½" Celotex rigid insulation board, and atop this 3 layers of 15 lb. tar-saturated felts, followed by a layer of 1-ply, 90 lb. mineral-surfaced rolled roofing, all weather-sealed by copious amounts of roofing tar, and finished off with a strong inch of slag, with copper counter flashing all around the edges, chimmeys, air vents, and other openings in the roof, inserted and firmly secured in Fry flashing reglet bonded in the brick masonry. And the roof is covered by a 20-year guarantee—an insurance company guarantee against all forms of deterioration. In other words, it's a "twenty year bonded job." And President Behncke says, *"IF IT DOESN'T LAST MORE THAN A HUNDRED YEARS, I WILL TURN OVER IN MY GRAVE, AND I AM NOT JUST TALKING."*

'Punch' in the Nose

This B-26 light bomber packs a mighty wallop with eight 50-caliber machine guns in its nose, ready to belch lead at the fleeing North Koreans. Corporal J. C. Lovelace of Fowler, Indiana, wears a scarf of 50-caliber ammunition as he prepares the B-26 for a mission against the North Korean communists.

JOIN ALPA FCU NOW
The goal—"Every ALPA Member an ALPA FCU MEMBER."

TRAILER TRUCK OF THE SKYWAYS



The new Fairchild "Packplane" XC-120, has put the tractor trailer truck of the highways into the air. In the above photo the cargo carrying compartment is being pushed into place beneath the plane. Four electric motors in the cabin compartment raise the pack into position where it is locked into place at four points by the operation of a single control in the cockpit. Without the "pod" the plane will break ground in less than 500 feet and climbs and dives almost like a pre-jet fighter. Tremendous savings in time are reported, since the tractor portion of the airplane can be off and on its way for another load while the "pod" is being unloaded.

EAL Crew Held Blameless

(Continued from Page 11, Col. 2)

the airplane without obtaining the required clearance from the tower, and without maintaining a proper lookout for other aircraft.

"9. The P-38 and the Eastern DC-4 collided at a point in line with and ½ mile from the approach end of Runway 3 at an altitude of 300 feet.

"10. The tower did not act with the requisite alertness and promptness in communicating to Eastern the position of the P-38 in the critical traffic situation which confronted it, but this cannot be said to have contributed to the cause of the accident.

"Probable Cause.

"The Board determines that the probable cause of this accident was the execution of a straight-in final approach by the P-38 pilot without obtaining proper clearance to land and without exercising necessary vigilance."

Doctor FENWICK Says:

By Herbert F. Fenwick, M.D.
ALPA Aero-Medical Dept.

"MECHANISM OF RESPIRATION"

(The following excerpts are reprinted from The Bureau of Mines Information Circular 7575. I believe that this information will be of great benefit to all pilots and all others engaged in any type of work in which oxygen is encountered in abnormal concentrations, or at abnormal pressures.)

The utilization of food and oxygen in the maintenance of life consists primarily of combustion processes. The essential elements of food are absorbed and carried by the blood to the body tissues where they are stored as fuel for the production of heat and mechanical energy as required. Combustion or oxidation of this fuel supply is accomplished by oxygen carried by the blood stream from the lungs to the tissues where the combustion processes take place. Little or no oxidation occurs in the lungs or blood. Carbon dioxide that results from combustion or oxidation in the tissues is carried thence by the blood to the lungs, from which it is exhaled as a waste product. The transport of both oxygen and carbon dioxide by the blood is accomplished by readily reversible chemical reactions, in which the hemoglobin of the blood is involved, but in distinctly different ways for the transport of the two gases.

As in any combustion process, the rate at which energy may be produced by the body is dependent on the rate at which fuel is burned, which, in turn, requires that the rate at which oxygen is supplied be increased as energy is required. Thus, upon physical exertion the rate of respiration must be increased, and, as fuel is burned at a more rapid rate, the rate of production of carbon dioxide increases also. It is the concentration (tension) of carbon dioxide in the blood stream that regulates the rate of respiration by acting upon the respiratory nerve center in the brain. As the tension of carbon dioxide in the blood tends to increase because of increased rate of combustion in the tissues, the respiratory center is stimulated, and rate of respiration (or lung ventilation) is increased automatically, with the result that the concentration of carbon dioxide in the lungs is reduced proportionately. When the degree or extent of physical exertion is decreased, the carbon dioxide content of the blood tends to decrease, and the respiratory center again acts to decrease the rate of lung ventilation. This regulatory mechanism functions to maintain an essentially constant tension of carbon dioxide in the arterial blood and in the air in the alveolar spaces of the lungs by varying the rate of lung ventilation or oxygen intake to meet the energy requirements of the body.

The oxygen requirement of the body also is accommodated through the respiratory center of the brain, although in a somewhat different manner. Carbon dioxide acts directly upon this center, but the demand for oxygen is exerted first upon the carotid sinus, a small bulb on the carotid artery of the neck, which communicates through nerves with the respiratory center of the brain. In contrast to carbon dioxide, oxygen produces a stimulus of the respiratory center only when the body requires an augmented supply of oxygen. An excess of oxygen in the lungs does not tend to change the respiratory rate. If a normal man inhales pure oxygen instead of air, neither his breathing nor the consumptin of oxygen by his body are increased markedly. In fact, the effect of inhalation of high concentrations of oxygen or metabolism (chemical changes that occur in the functioning of living tissue) appears somewhat controversial. The fact that the rate of oxygen consumption does not increase significantly under this condition refutes the early theory that pure oxygen might not be breathed without danger of "burning up" the body through excessively rapid oxidation.

The control of respiration exerted through the carotid sinus comes into play only when, through physical effort, oxygen is consumed in the tissues more rapidly than it can be transported by the blood from the lungs to the tissues, or when an atmosphere deficient in oxygen is inhaled. Thus, under normal conditions of physical activity, and when breathing atmospheres of normal oxygen content, carbon dioxide in the tissues and blood stream exerts the chief and immediate control over rate of respiration (lung ventilation).

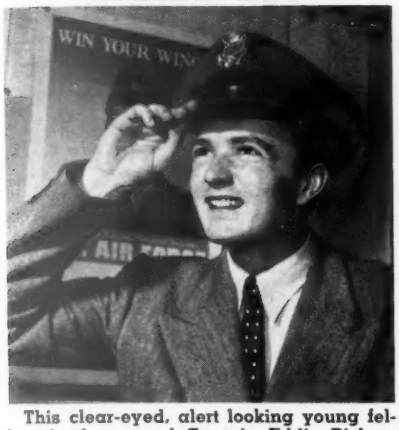
JOINT SECRETARIES

Utilizing the organizational plan of the military in the establishment of a Joint Chiefs of Staff Conference, the Civilian Secretaries of the Army, Navy and Air Force have formed into a group known as the "Joint Secretaries" and are pictured below holding a meeting in Washington. Seated (L. to R.) are: Secretary of the Navy, Francis P. Matthews; Secretary of the Army, Frank Pace, Jr.; and Secretary of the Air Force, Thomas J. Finletter. Standing is Edward T. Dickinson, assistant to the Joint Secretaries.

Apropos Indeed

"For the fight is never won and the truth must never be forgotten that the price we pay for liberty is, indeed, the price of eternal vigilance."

EDDIE'S BOY

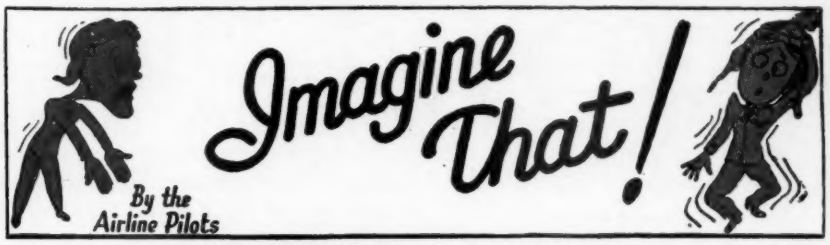


This clear-eyed, alert looking young fellow is the son of Captain Eddie Rickenbacker, EAL President, top ace of World War I, first string automobile race driver, and an all around man's man. Yes, the boy comes from good stock and what's more important, he is starting at the right end of the business—taking his chances with the rank and file and asking for no special considerations and no special favors. Welcome to the flying fraternity, Captain Eddie, Jr., and good luck always.

Are you wearing a new ALPA emblem? The new pin, which is superior to the old in every way, is available at Headquarters for $1.20 each. It has a bronze base and is gold plated with the letters, ALPA, cut clear and distinct. "EMBLEMIZE" now!

BRUCE IS DOWN ON THE FARM

This smiling countenance should be familiar to all Chicago & Southern Air Lines' pilots. Yes, it's Bruce E. Braun, former C&S Vice-President of Operations, now retired to his farm in Sebewaing, Michigan. 'Tis said, boys fight to get away from the farm and when they make the break, they immediately begin the fight to return. Braun's aviation background was gained in virtually every field of the industry. He fought in World War I as a lieutenant with the Army Air Service. He was factory superintendent for Stinson Aircraft. He served as an air line inspector for the U. S. Department of Commerce, and he held a transport pilot's rating, having flown over three thousand hours. On Chicago & Southern, he became one of aviation's most colorful and highly respected air line officials, well liked by the pilots and air line executives. Bruce was one of the few who managed to do a managing job without creating enemies.



EXPERIENCING IS BELIEVING

Something new and different has been added. The Air Line Pilots Association now has an Exec. Veep. Irrespective of and notwithstanding all the arguments that were advanced pro and con as to the need or lack of need for this new species of officialdom for ALPA, the volume of work that has been channeled in the direction of this new victim of circumstances is comparable to the Youngstown flood, and the tide is still rising. The accompanying cartoon makes a brave attempt at humor, but misses the target, and instead represents stark reality. It pictures a scene in the office of ALPA's new Executive Vice President—one "Clancy" Sayen, until recently a perfectly normal air line pilot. A remark for which Clancy has become famous and which he makes about midnight each night is, "Well, this has sure been 'another one of those days'." Another characteristic statement is, "I never knew it was like this at Headquarters," and the sad part is that the only way anyone finds out is to spend time at the receiving end of ALPA's work load. All this goes on days on end endlessly against the no-sympathy backdrop dirge of ALPA's top hand veterans, "You came here to work, didn't you? What are you complaining about?"—all of which creates a 365-day merry-go-round on which the only apropos comment can be, "There is ne'er a dull moment." Seriously, apparently Veep "Clancy" can take it. He's still here and that is, in itself, a plenty good recommendation, and if you don't think so, try ALPA Headquarters' routine one day on your own violin and see what kind of music it makes.

MIAMI, WASHINGTON, and ANCHORAGE CALLING...
NEW YORK, CLEVELAND, and HONOLULU CALLING...
DIRECT WIRE FROM R.L.P.
DON'T LET IT GET YOU DOWN, CLANCY—THE FIRST 20 YEARS ARE THE HARDEST...
WHICH OF TODAY'S 30 DEADLINES DO WE TACKLE FIRST?
MAIL
OUT
IN
MORE MAIL!!

* * *

—AND NEITHER DO WE

But we're glad that someone knows all the answers. The following was gleaned from an article in a large Kansas City metropolitan daily. It appears that a certain president of a certain large air line takes pride in demonstrating his aptitude as an air line pilot to members of his Board of Directors. As the story goes, on a recent trip the air became very bumpy. The air line president turned to his fellow passenger, one of the directors of the company, and said, "The pilot is on a shear line." With a puzzled look, and after taking another three hitches in his safety belt, the director replied, "And what's a shear line?" The air line prexy explained proudly that it is where two masses of air, moving in opposite directions, meet headon. He added knowingly, "If the pilot will go up or down a few hundred feet, we will have smooth sailing." Next, the president arose, left his seat, and swept into the cockpit and spoke a few words of exceptional wisdom to the pilot, and returned to his seat. Lo and behold, smooth air quickly replaced the bumpiness. Just like that—shear lines and all.

* * *

LAMB IN LION SKIN

The big cats (lions and tigers) are the most carnivorous of the world's living things. That is why it is astounding to meet a lion that is a vegetarian . . . a lion that can't be cajoled or threatened into tasting meat of any kind. This rara avis of the cat family is a 350-pound lioness on the Hidden Valley Ranch of George and Margaret Westbeau in Auburn, Washington. The lioness rejoices in the name of "Little Tyke." The Westbeaus got her from a zoo shortly after she was born. She was the only cub and her mother had been unkind to her to the point of biting and crushing her right front leg. Since "Little Tyke" has been a member of the Westbeau household, she has lived entirely on cereals, raw eggs, milk and cod-liver oil. Animal experts said that a big cat could not live without meat. But no one has ever been able to convince "Little Tyke" that this is so. Another unusual thing about the lioness is that she shows no desire to get tough with other animals. There are chickens, peacocks, horses, a pet raccoon, a terrier puppy and a young lamb on the Hidden Valley Ranch. But "Little Tyke" is more lamblike than the lamb. She'll play with the other livestock and has never hurt one. It is difficult to convince the Westbeau neighbors of "Little Tyke's" sunny nature. From time to time they voice fears that she will revert to the jungle temperament. But Westbeau says that it will never happen. "Where there is no fear," he says, "there is no savagery." In the photo, this lamb in lionskin is shown with Miss Lolly Allen, a United Air Lines' stewardess (nice too, isn't she? Better say, yes, for she has nice claws, too), who had heard about "Little Tyke" and was curious enough to visit the ranch. The lioness had never seen her before, but was as friendly as a setter pup—friendlier than some. What's "Little Tyke's" phone number? Oh, you're not interested? You mean what's Miss Lolly's 'phone number? Now, now, after all—

In Constant Memoriam

"TO FLY WEST, MY FRIEND, IS A FLIGHT
WE ALL MUST TAKE FOR A FINAL CHECK"

Active Duty Air Force

Allen, K. N.—AA
Anderline, F. W.—UAL
Beadles, E. C.—UAL
Berger, H. A.—UAL
Bowen, W. S.—EAL
Caton, C. E.—EAL
Connelly, L. J.—TWA
Darby, J. E.—C&S
Davis, W. E.—Continental
Diltz, H. C.—TWA
Doxey, W. S.—PAA
Duke, A. B.—EAL
Eyre, Lloyd—UAL
Folkers, H. J.—Braniff
Gray, W. B.—EAL
Greenlee, R. L.—UAL
Hazlett, G. W.
Herndon, Thomas—UAL
Howell, P. P.—TWA
Hurren, Aubrey S.
Jackson, Walter—TWA
Keith, W. E.—AA
McDowell, H. C.—UAL
Mills, Arthur—Braniff
Mitchell, H. F.—Colonial
Mostoller, Charles—EAL
Nagel, John—MCA
Nelson, F. S.—WAL
Peterson, Warren—TWA
Quale, R. J.—AA
Roth, P. F.—EAL
Schier, Tip—Delta
Shafer, G. H.—TWA
Skelly, H. J.—AA
Thompson, J. J.—TWA
Treweek, J. M.—AA
Zimmerman, H. J.—TWA

Active Duty—Navy

Jones, J. P.—EAL
Knudsen, Max—TWA
Nelson, R. G.—NEA
Rehm, W. L.—NEA
Roscoe, T. M.—TWA
Sparboe, J. H.—NWA
Williams, R. W.—EAL

Active Duty Marine Corps

Kimball, W. F.—TWA
Pielemeir, H. E.—AA

Active—Accidental

Adams, J. B.—UAL
Amthor, W. E.—TWA
Anderson, Lloyd—UAL
Andert, P. A.—UAL
Antonio, S. B.—PCA
Bamberger, T. L.—TWA
Banegas, Antonio—TACA
Barrett, J. C., Jr.—PAA
Barron, J. M., Jr.—AA
Bates, C. F.—NWA
Bethel, A. T.—TWA
Bickford, L. A.—Panagra
Bigelow, Edward—UAL
Bliven, L. H.—NWA
Blom, E. W.—UAL
Bogen, W. L.—WAE
Bolmet, F. L.—TWA
Bolton, H. F.—TWA
Bontrager, C. M.—UAL
Borchers, Adrian—PAA
Bowen, J. E.—TWA
Bowen, L. L.—Braniff
Brand, W. J.—AA
Brandon, J. L.—UAL
Brenner, D. F.—NWA
Briggs, F. W.—AA
Briggs, W. P.—UAL
Brigman, R. M.—AA
Broghton, D. E.—UAL
Brown, D. W.—UAL
Brown, F. L.—UAL
Brown, H. B.—NEA
Brunk, P. S.—PAA
Bryan, T. E.—AAA
Bucher, C. L.—CA
Bucklin, Fred—NEA
Bullis, R. L.—PAA
Burks, J. A.—UAL
Burton, R. L.—Inland
Caneta, J. J.—EAL
Carpenter, B. A.—AA
Carson, S. A.—PCA
Carter, Harold L.—Robinson
Chamberlain, C. B.—NWA
Charleton, H. T.—AA
Christensen, E. L.—TWA
Christian, B. W.—NWA
Christian, F. J., Jr.—NWA
Clark, F. M.—Continental
Clayton, R. C.—C&S
Cohn, H. G.—WAS
Cole, D. C.—UAL
Coney, W. E.—EAL
Cooper, D. I.—AA
Cope, Alonzo—Marine Airways
Cox, Floyd—Ludington
Dace, F. E.—WAL
Dally, B. H.—TWA
Davidson, W. A.—AA
Davis, A. W.—UAL
Davis, Douglas—EAL
Davis, W. J.—CAP
DeCesare, Frank—Panagra
DeCesaro, J. G.—UAL
Dietz, S. G.—EAL
Dietze, R. H.—AA
Disosway, J. S.—Delta
Dixon, Andrew, Jr.—Delta
Dryer, D. F.—AA
Dyjak, R. J.—NWA
Eitner, R. G.—AA
Elder, McLemore—AA
Elzsey, R. M.—PAA
Enger, G. E.—NWA
Fey, Howard—UAL
Fidroeff, W. M.—WAL
Fields, G. T.—AA
Fife, M. L.—AA
Fischer, J. F.—NWA
Fletcher, David B.—TWA
Fortner, W. F.—EAL
Foster, L. A.—PAA
Francis, D. B.—AA
Fuller, R. E.—AA
Funkhouser, R. W.—TWA
Gardner, G. W.—Panagra
Gay, R. A.—AA
Gray, George—EAL
Gentry, J. N.—PAA
George, Hal—TWA
Gill, D. N.—TWA
Gillette, M. A.—TWA
Golden, Glenn—AA
Gower, V. I.—Delta
Griesbach, G. C.—UAL
Grover, R. B.—UAL
Haid, A. A.—NWA
Hale, S. H.—EAL
Hallgren, W. A.—AA
Ham, F. M., Jr.—AA
Hammitt, Haldon J.—TWA
Hart, J. F.—NWA
Hart, J. H.—PAA
Haskew, H. M.—EAL
Hazelwood, C. R.—EAL
Henson, C. M.—PAA
Hill, G. W.—AA
Holbrook, C. M.—AA
Holloway, G. L.—Delta
Holsenbeck, W. M.—PAA
Holstrom, A. E.—AAA
Howed, Victor—TACA
Hunt, Edward—AA
Ice, J. R.—Inland
Inman, R. R.—TWA
Inman, W. B.—EAL
Ireland, B. L.—Continental
Jakel, F. C.—PAA
Jameiller, S. E.—Continental
Jameison, W. L.—EAL
Johnson, R. L.—NWA
Jones, D. B.—NWA
Jones, H. H.—PCA
Jones, L. E.—UAL
Jones, W. H.—UAL
Josselyn, John—PCA
Judd, O. K.—PAA
Kelley, R. A., Jr.—EAL
Kelsey, H. J.—AA
Kennedy, V. G.—TWA
Kincannon, T. N.—AA
King, G. B.—PAA
King, J. O.—EAL
Knight, R. S.—EAL
Komdat, A. C.—EAL
Kroeger, J. H.—PAA
Kuser, R. E.—EAL
Lafferty, Robert—C&S
Lamb, C. S.—UAL
LaMontagne, R. L.—AA
Lehr, R. B.—AOA
Lewis, H. C.—TWA
Lind, Robert C.—NWA
Livermore, Joe—NWA
Llewellyn, Frank A.—Robinson
Loeffler, E. J.—WAL
Lucas, Al—Wyoming Air Service
Lucas, Verne—Ludington
Lynn, J. B.—C&S
Majors, R. R.—AA
Mallick, F. E.—UAL
Mamer, N. B.—NWA
Marshall, G. V.—AA
Martin, K. R.—NWA
Matthews, Leroy R.—EAL
McAfee, William—PAA
McCauley, J. R.—AA
McCoy, R. S.—PAA
McGinn, W. T.—NWA
McKeirnan, P. S.—TWA
McLaughlin, J. J.—AA
McMickle, Harold—Panagra
McMillen, E. L.—UAL
Merrifield, A. S.—UAL
Miller, B. D.—AA
Miller, G. D.—NWA
Miller, G. J.—WAL
Miner, W. H.—UAL
Mitchell, J. W., Jr.—EAL
Monsen, A. N.—PAA
Montee, Ralph—TWA
Montijo, J. G.—VAT
Morgan, H. R.—TWA
Morgan, H. W.—PAA
Mossman, R. C.—C&S
Neff, Harold—UAL
Nilsen, N. A.—TWA
Noe, E. J.—TWA
Norby, R. B.—NWA
Nordbeck, H. T.—NEA
Obri, N. F.—PAA
O'Brien, W. E.—PCA
Odell, M. T.—AA
Olson, K. S.—NWA
Onsgard, Alden—NWA
Owens, C. P.—WAE
Palau, E. M.—TACA
Paschal, Archie—PAA
Paulis, Raymond—PCA
Pedley, C. F.—AA
Pell, J. N.—PCA
Perry, J. A.—EAL
Person, A. G.—PAA
Petry, R.—NWA
Phillips, W. M. S.—EAL
Pickup, C. V.—UAL
Pitman, C. V.—Avianca
Poe, K. N.—Avianca
Pope, Francis—TWA
Porter, G. H.—AAA
Porter, L. L.—CAP
Potter, N. W.—UAL
Proebstle, Roy—NWA
Pursley, C. H.—Panagra
Radoll, R. W.—UAL
Raley, R. J.—NWA
Ray, George—EAL
Repack, W. T.—PCA
Rhew, J. N.—C&S
Riggs, R. S.—AA
Robbins, W. J. B.—AA
Rousch, C. W.—NWA
Rust, F. H.—AA
Salisbury, H. M.—TWA
Saltanis, P. J.—EAL
Sanborn, R. B.—EAL
Sandblom, J. V.—CP
Sandgren, T. E.—UAL
Sands, R. E.—UAL
Sauceda, J. M.—PAA
Schember, R. C.—UAL
Schwartzbach, M. D.—WAL
Scott, P. C.—UAL
Scott, P. T. W.—TWA
Scroggins, L. V.—PCA
Shank, E. S.—NWA
Sharpnack, J. W.—UAL
Sheets, D. K.—Panagra
Sheiton, G. E.—TWA
Sherwood, G. C.—WAL
Simmons, Julien B.—EAL
Smith, G. E.—TWA
Smoot, C. H.—Braniff
Snowden, J. P.—TWA
Sprado, George—WAL
Stark, Horace—PCA
Stehle, W. C.—AA
Stickel, J. J.—NWA
Stiller, H. A.—AA
Stoner, S. E.—AA
Stroud, J. E.—AA
Stultz, H. L.—TWA
Sumrall, M. B.—PAA
Supple, R. E.—Panagra
Swander, L. D.—NAL
Tarrant, H. R.—UAL
Taylor, V. W.—NWA
Terletzky, Leo—PAA
Thomas, L. E.—EAL
Thompson, A. R.—UAL
Turbyne, Robert—Panagra
Underwood, S. L.—AA
Vance, C. K.—UAL
VanCleef, J. G.—NWA
Vanderbusch, R. E.—NWA
Venderley, P. W.—AA
Wagar, G. K.—UAL
Waldron, Joe—AA
Walker, M. A.—PAA
Wallace, C. W.—TWA
Wallace, E. G.—PAA
Warner, George—UAL
Wasil, N. A.—TWA
Watkins, E. C.—AA
Weatherdon, Edwin—AA
Webb, Walton B.—TWA
Weber, R. J.—WAL
Weeks, R. E.—TWA
West, F. W.—NWA
Westerfield, W. R.—AOA
Whidden, R. G.—NEA
Wieselmayer, Otto—PAA
Williams, W. C.—TWA
Williamson, P. B.—EAL
Willingham, K. V.—EAL
Wilson, W. C.—AA
Winkler, F. X.—TWA
Witt, Porter—NWA
Wolf, J. F.—WAE
Wolfe, Verne F.—NWA
Worthen, J. A.—WW
Wright, J. S.—TWA
Young, G. E.—UAL
Zeier, C. F.—C&S
Zundel, W. R.—AA.

Active—Natural

Andrews, Clyde M.—NAL
Bedell, Charles W.—PAA
Blomgren, L. L.—AA
Boyer, C. M., Jr.—PAA
Briggs, Edwin—CAP
Carl, A. C.—PCA
Chiappino, L. J.—TWA
Cochran, R. M.—UAL
Colton, Ray—UAL
Couch, L. H., Jr.—PAA
Creekmore, R. N.—PCA
Currier, C. L.—TWA
Dunn, G. B.—NWA
Durrance, J. C.—EAL
Fife, J. A.—CA
Flinn, Elroy J.—PAA
Gambee, H. T.—TWA
Griffin, L. B.—Panagra
Harris, D. T.—AA
Hedenquist, W. A.—TWA
Helm, Thomas O.—C&S
Hohag, R. J.—NWA
Hubbard, D. L.—NWA
Jamieson, L. S.—EAL
Jaster, F. B.—EAL
Johnson, H. A.—TWA
Johnson, P. E.—UAL
Keadle, F. E.—Varney
Kite, Don N.—AA
Leist, G. D.—PCA
Maguire, R.C.—AA
McClemens, K. J.—NEA
McConaughey, I. M.—AA
McCracken, H. Wayne—AA
Parker, A. N.—TWA
Peterson, J. M.—NWA
Phelps, H. T.—PAA
Rhoades, G. I.—PAA
Shepard, E. W.—PAA
Steup, W. A.—CAP
Swanson, Axel—AA
Wagner, M. J.—PCA
Waidner, Claude F.—EAL
Wallace, J. L.—UAL
Winston, W. A.—PAA
Wittenberg, F. E.—UAL

Inactive

Allen, J. A.
Anderson, W. D.
Ashford, Ted
Austin, Amos A.
Barr, Julius
Beindorf, C. R.
Bowhan, Francis D
Bowie, Arthur J.
Brill, G. W.
Brown, W. C.
Burford, D. W.
Caldwell, G. Q.
Campbell, M. H.
Cushing, G. R.
Doty, D. E.
Downs, Lloyd
Drayton, C. M
Dunn, S. M.
Erickson, F. M.
Evans, R. E.
Fisher, A. O. F.
Gilbert, P. L.
Griebel, G. S.
Grund, W. F.
Harlow, L. R.
Hart, Jesse E.
Hays, G. L.
Hines, K. F.
Holland, Glenn A.
Hulsman, H. W.
Hunter, L. W.
Jackson, L. A.
Jacob, S. T.
Jennings, Spencer
Jewell, Robert H.
Judy, H. R.
Kerwin, J. J
Knight, J. H.
Kraft, H. G.
Latz, W. G.
Leak, E. L.
Little, R. J.
Lorber, C. A.
Lowe, E. L.
Maas, E. A.
McConnell, W. M.
McMakin, R. A.
Minor, R. T.
Mitchell, R. L.
Moser, J. M.
Murphy, J. W.
Nicholson, Raymond F.
Northrop, Cecil P.
Noyes, D. L.
Ormsbee, F. E.
Palmer, D. G.
Rhiner, L. H.
Riddle, G. L.
Rose, J. A.
Rosenberger, W. S.
Roulstone, J. J.
Rousch, U. E.
Schmitz, George
Shelton, B. M.
Splittstoesser, E. A.
Squire, J. P. L.
Stark, H. C.
Steen, J. L.
Sterling, C. M.
Straith, W. P. A.
Thompson, C. A.
Tinkle, H. A.
Van Alstyne, Hugh, Jr.
Vaughan, M. G.
Veblen, E. H.
Walbridge, D. C.
Warner, Roy
Wheaton, H. H.
Whittemore, F. W.
Willey, S. L.
Wixon, Jack

Waiting List

Brock, W. S.
Clark, W. H.
Kiser, Daniel
Langmack, D. F.

Honorary

Brisbane, Arthur
Greene, Dr. Ralph
Kelly, Hon. Clyde
LaGuardia, Fiorello H.
Rogers, Will
• Wright, Orville

ALPA Employees in Line of Duty

Munch, F. O.